〈ART-025-0〉

SERVICE MANUAL

COMPACT STEREO SYSTEM

C-4500

HV HVT

Note:
Parts number is subject to change for the purpose of improvement with notice of a service bulletin.
Service bulletin will be furnished whenever necessary and you are requested to amend parts number in this manual according to the instructions.

〈73H00M51L〉

PIONEER®

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1. SPECIFICATIONS

SEMICONDUCTORS

Transistors 18
Diodes 6

AUDIO SECTION

Music Power Output (IHF H.D. 0.5%) 44W (4Ω), 36W (8Ω)
Continuous Power Output (IHF H.D. 0.5%)
(each channel driven) 16W/16W (4Ω)
13W/13W (8Ω)
(both channels driven) ..... 12W + 12W (4Ω)
10W + 10W (8Ω)
Frequency Response ..... 20Hz to 50kHz ±3dB
Hum and Noise (IHF)
PHONO ..... More than 70dB
AUX ..... More than 90dB
Input Sensitivity/Impedance
(1kHz, Continuous power output)
PHONO 2.5mV 50kΩ
AUX 200mV 100kΩ
Output Jacks and Terminals ..... Speakers, 4Ω~16Ω
Headphone Jack
Tape REC/PB Connector (DIN type)
Bass Control ..... −11dB, +12dB (100Hz)
Treble Control ..... −10dB, +9.5dB (10kHz)
Loudness Contour ..... Switchable to ON-OFF
+10dB (100Hz), +5.5dB (10kHz),
with volume control set at −40dB position.
Channel separation
PHONO ..... More than 50dB (1kHz)
AUX ..... More than 55dB (1kHz)

TURNTABLE

PHONO MOTOR and TURNTABLE PLATTER
Motor ..... 4-pole synchronous type, Belt-driven
Speed ..... 2 Speeds (33-1/3 and 45 rpm)
Turntable Platter ..... 30cm (12-inch), Aluminum alloy die-cast diameter
Wow and Flutter ..... Less than 0.1%
S/N ..... 47dB or more
Working Voltage ....AC 220/240V. 50Hz or 60Hz (motor pulley exchangeable)

TONEARM

Tonearm Type ..... Static balance type S-shaped pipe arm
Usable cartridge weight ..... 6.4 ~ 10g
Cartridge Attached Dimensions ..... EIA and JIS standards

SUBFUNCTIONS

Anti-skating device control, Lateral balance control
Hydraulic cueing device

CARTRIDGE

Type ..... Induced magnet type (PC-30)
Stylus Point ..... 0.5 mil diamond
Stylus for Replacement ..... Pioneer stylus model PN-30
Tracking Force (stylus pressure) ..... 1.7 ~ 2.3g

OTHERS

Wooden case ..... Walnut grain finished
External Dimensions ..... 517(W) x 179(H) x 398(D) mm
20-5/16(W) x 7-1/16(H) x 15-5/8(D) in.

MISCELLANEOUS

Power Requirements 220V/240V, 50Hz/60Hz
Power Consumption 78W
Total Weight ..... With package 14.9 kg 30 lbs
Without package 12.9 kg 28 lbs

Furnished Accessories
EP Record Adaptor 1
Lubricant (for turntable) 1
Screwdriver (small) 1
Sub-weight 1
Capstan (60Hz) 1
Operating Instructions 1

Notes: • Above specifications refer to combination of turntable with the Pioneer phono cartridge PC-30.
• Specifications and the design subject to possible modification without notice due to improvements.

2. FRONT PANEL FACILITIES

SPEAKERS Switch

Switch for selecting power supply ON & OFF, and speakers.

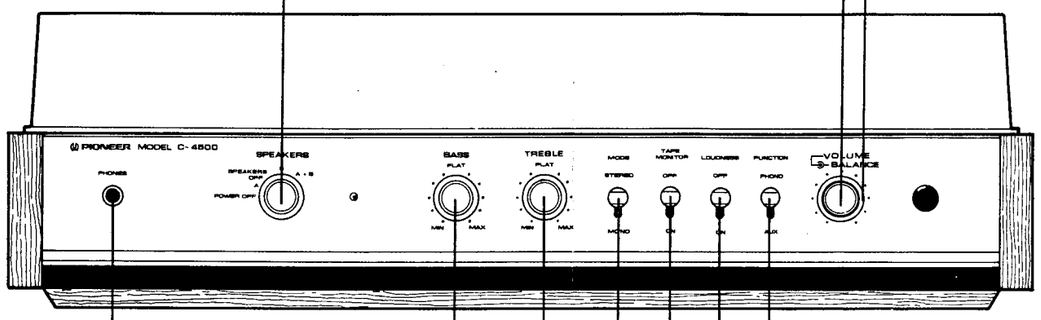
POWER OFF . . . . . Power supply OFF.

A . . . . . Sound can be obtained from the speaker system connected to the "A" terminals.

SPEAKERS OFF . . . . . All speaker sound turned OFF; use this position when employing stereo headphones.

B . . . . . Sound can be obtained from the speaker system connected to the "B" terminals.

A + B . . . . . Sound can be obtained from "A" and "B" speaker systems.



VOLUME Control

Control for adjusting sound volume. Clockwise rotation increases volume.

BALANCE Control

Adjusts volume balance between left and right speakers. When rotated counterclockwise from center position, right speaker volume decreases, while clockwise rotation decreases left speaker volume.

PHONES Jack

When using stereo headphones, insert the headphone plug into this jack.

BASS & TREBLE Controls

Controls for adjusting low and high audio tones. When clickstop type knobs are turned clockwise, tone is enhanced. Rotating the knobs counterclockwise attenuates tone.

MODE Switch

STEREO . . . . . Set to this position for stereo reproduction

MONO . . . . . Set to this position for monophonic reproduction. At this setting, left (L) and right (R) signals are mixed and reproduced from the left and right speakers.

FUNCTION Switch

Set to PHONO when playing records.
When playing component connected to the AUX terminals, set to AUX.

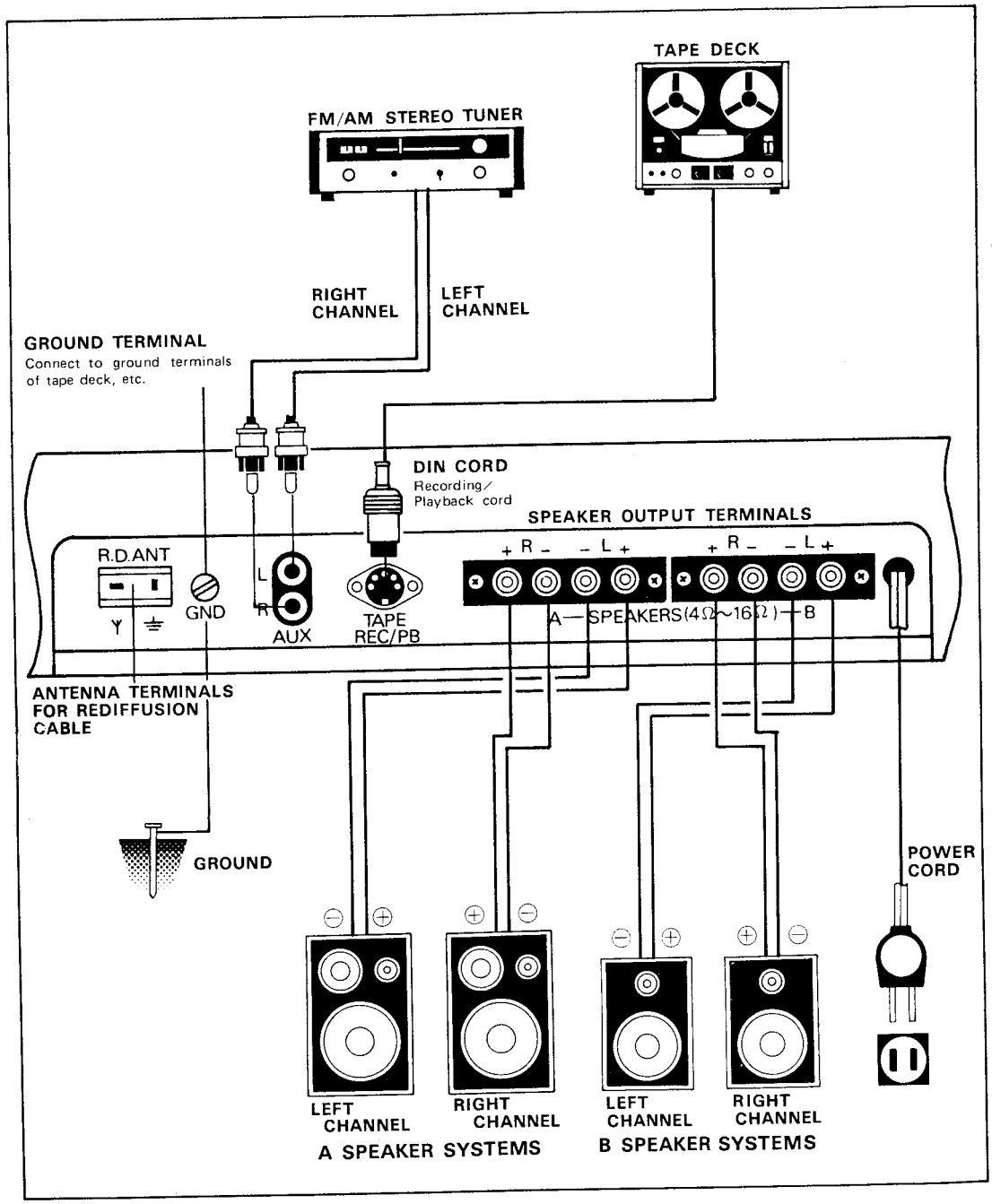
LOUDNESS Switch

When listening at a low volume level, set this switch to ON. This emphasizes the extreme high and low ends of the sound spectrum, giving a more natural sound contour.

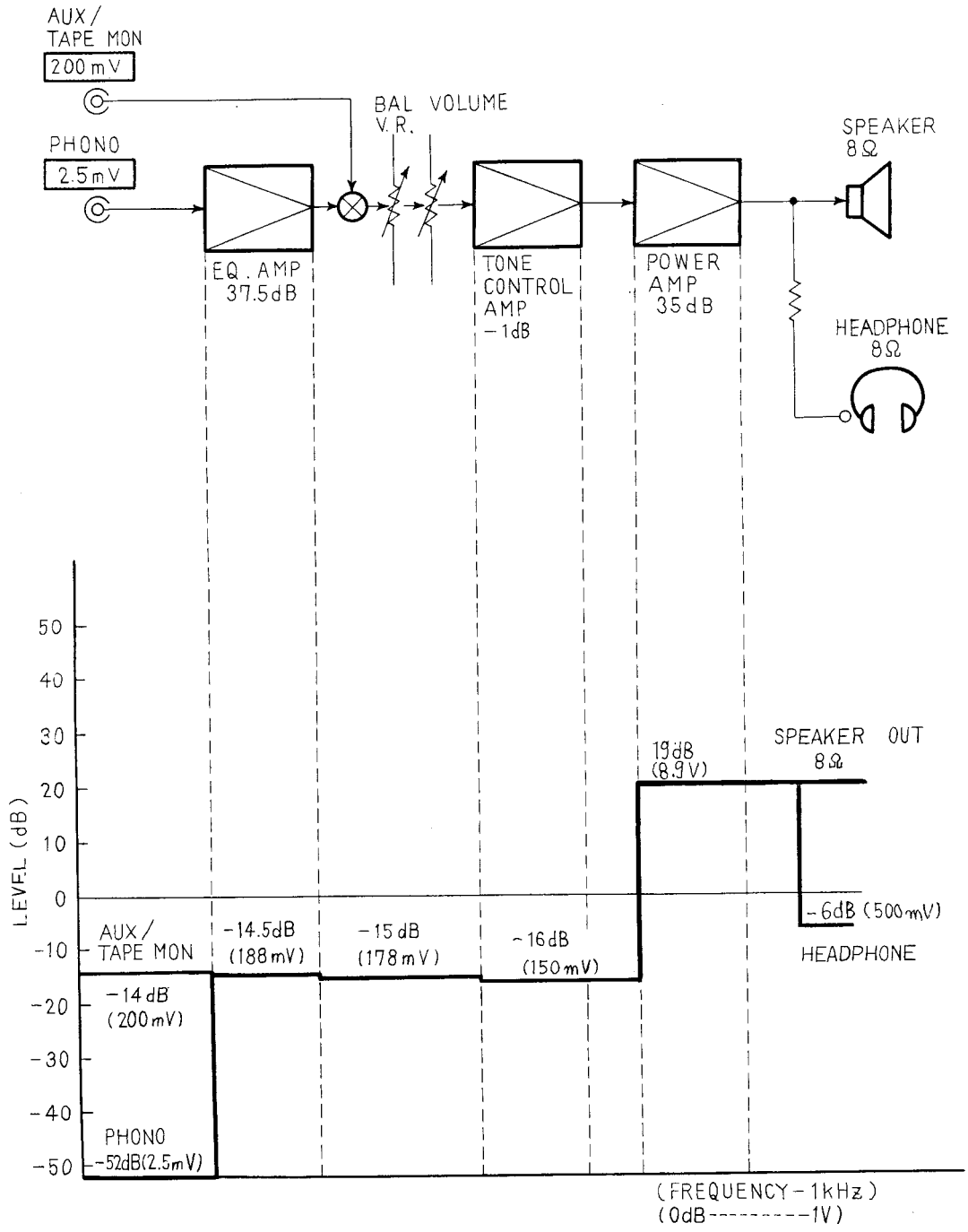
TAPE MONITOR Switch

With tape deck connected to the TAPE REC/PB terminal, this switch permits monitoring of recording conditions. Also set this switch to ON during tape playback.

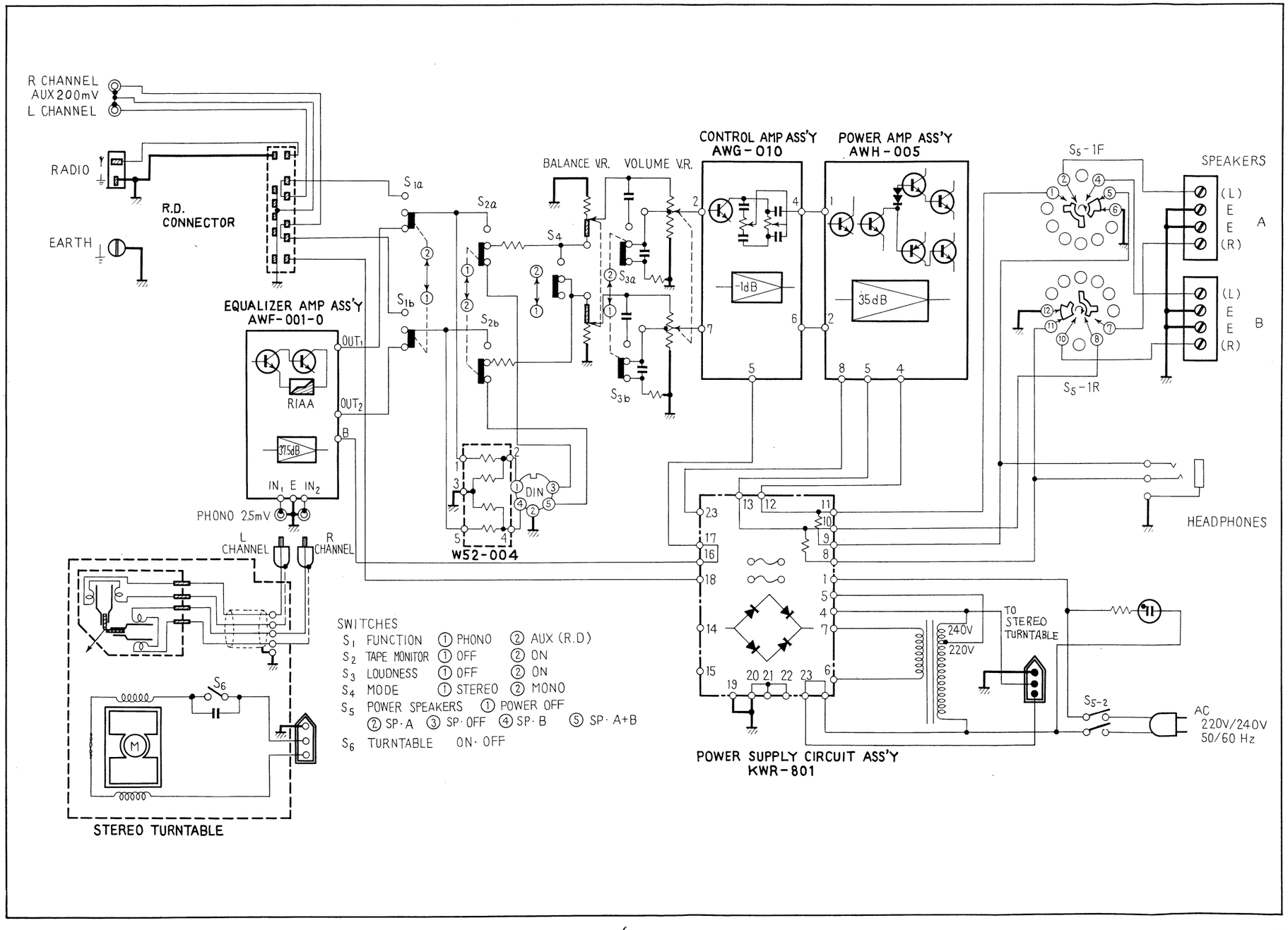
3. CONNECTION DIAGRAM



4. LEVEL DIAGRAM

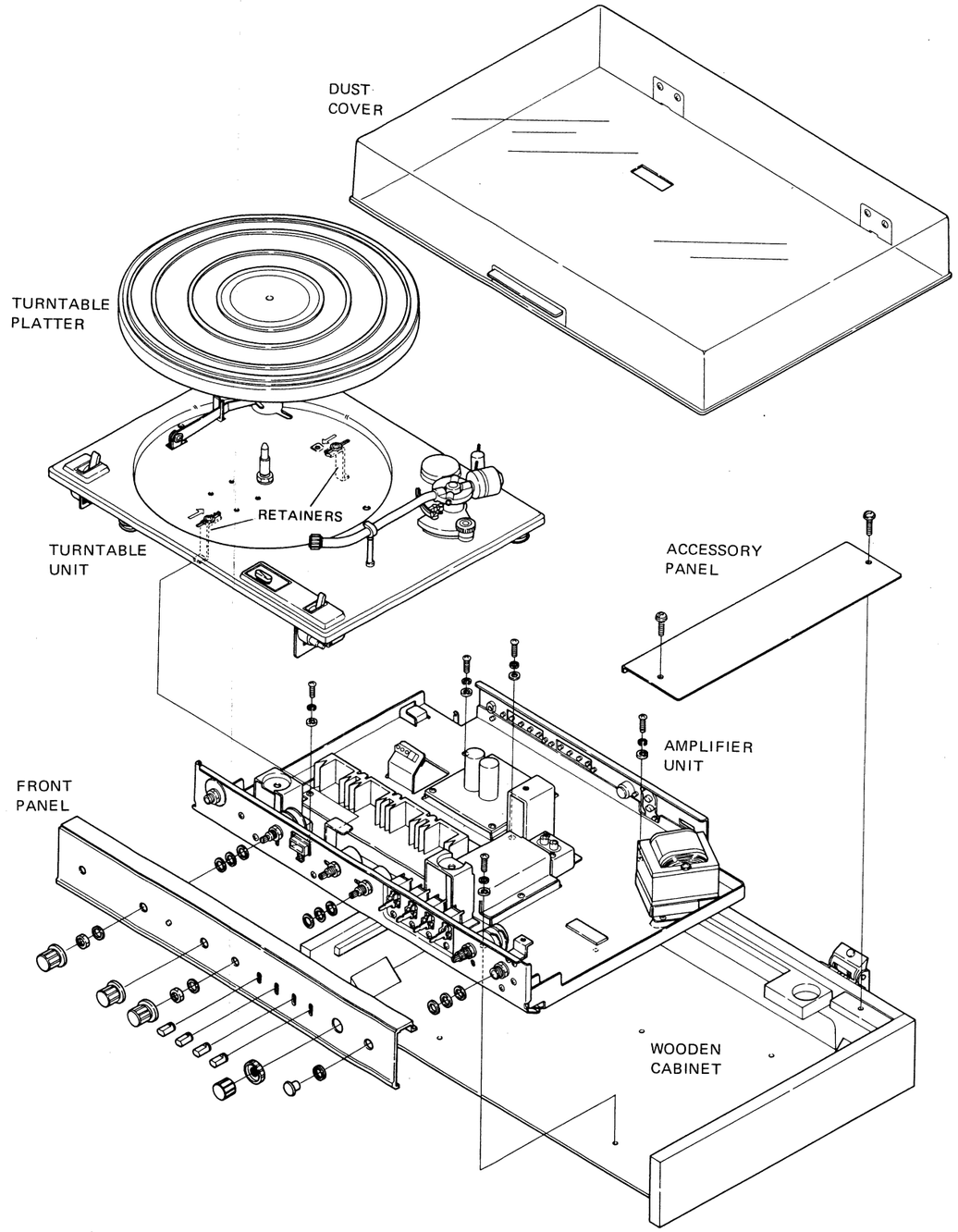


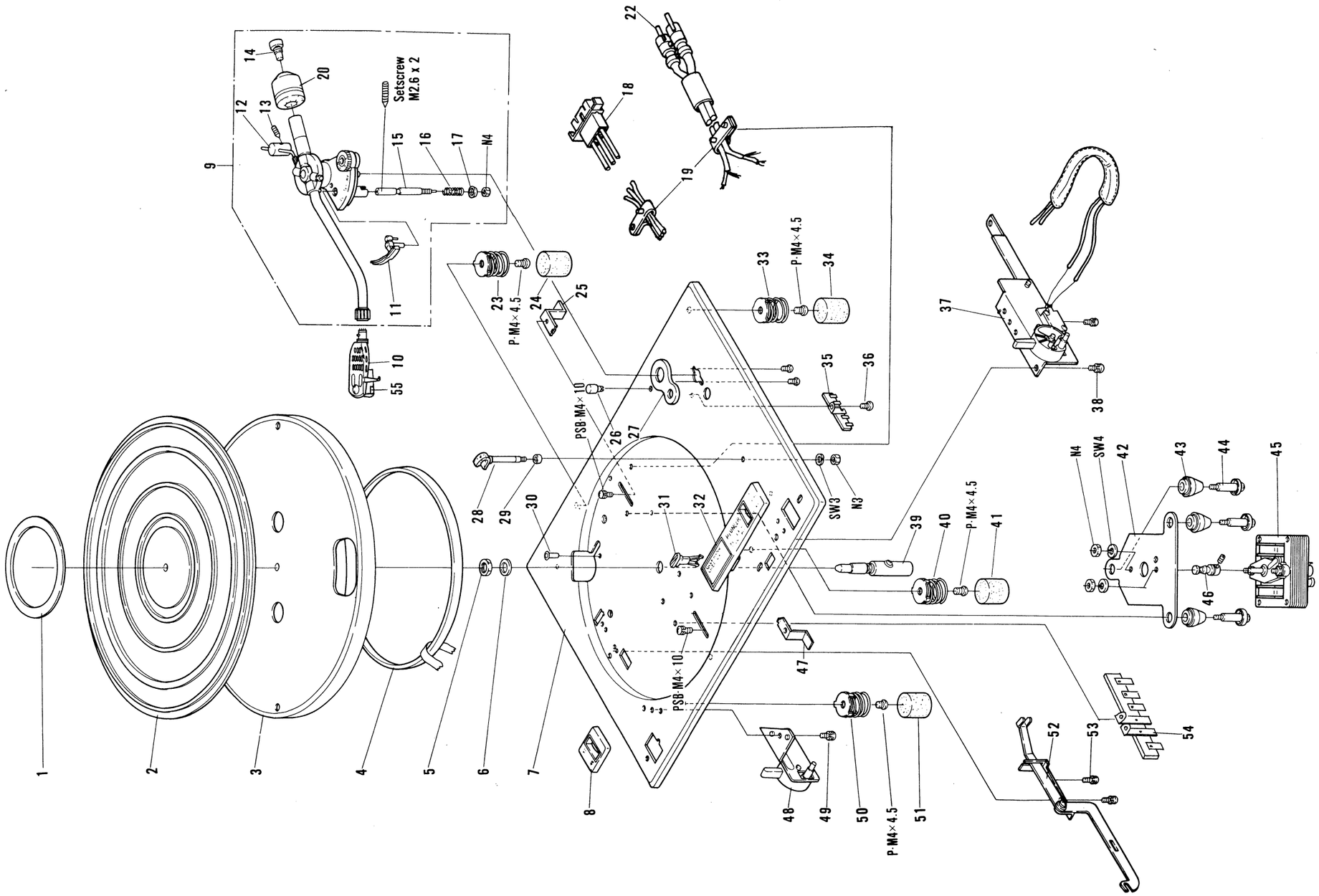
5. BLOCK DIAGRAM



6. DISASSEMBLY

1. Remove the dust cover.
   The accessory panel can be removed by unscrewing two screws by which the panel is fastened.
2. Remove the turntable platter.
3. How to remove the turntable unit.
   Loosen two screws fastening the two retainers by which the turntable unit is held. (Take care of not removing two screws.)
   Slide the retainers in directions of the arrows.
   Then the unit can be easily removed.
   To remove the turntable unit, pull off connection cord and pin plugs from the amplifier unit to which the turntable unit is connected.
4. Unscrew five screws fastening the wooden cabinet, then remove it.
5. To remove the front panel, pull off all control knobs.
   Remove three nuts and two washers.
   Now the front panel is removed.

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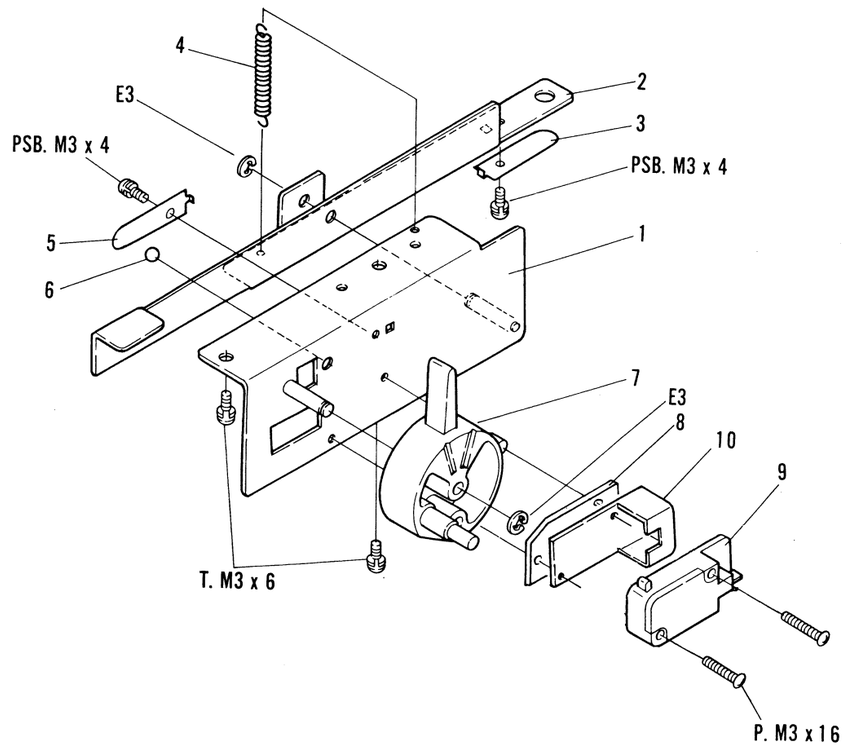
Setscrew M2.6 x 2
N4
P·M4×4.5
PSB·M4×10
SW3
N3
SW4

10.2 FUNCTION LEVER ASSEMBLY

NOTICE:
Any parts asterisked (*) are subject to being not supplied.

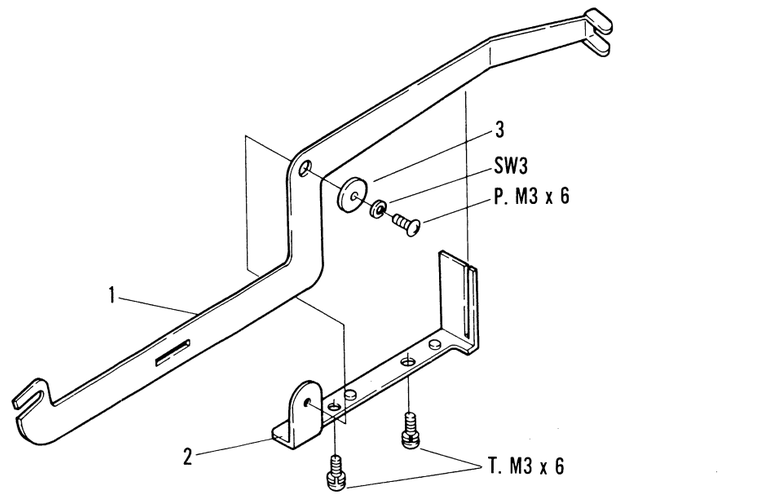
Key No.	Description	Part No.	
	Function lever assembly	KXA-331-F	
1	Function lever angle unit	KWM-027-0	
2	Lifter	KNA-328-0	
3	Plate spring	KBK-016-0	
4	Spring	KBH-066-A	
5	Plate spring	KBK-016-0	
6*	Steel ball 5/32"		
7	Function lever	KNK-169-0	
8	Insulator plate	KNA-700-0	
9	Microswitch	KSF-015-0	
10	Microswitch cover	KNK-237-0	



10.3 BELT GUIDE ASSEMBLY

NOTICE:
Any parts asterisked (*) are subject to being not supplied.

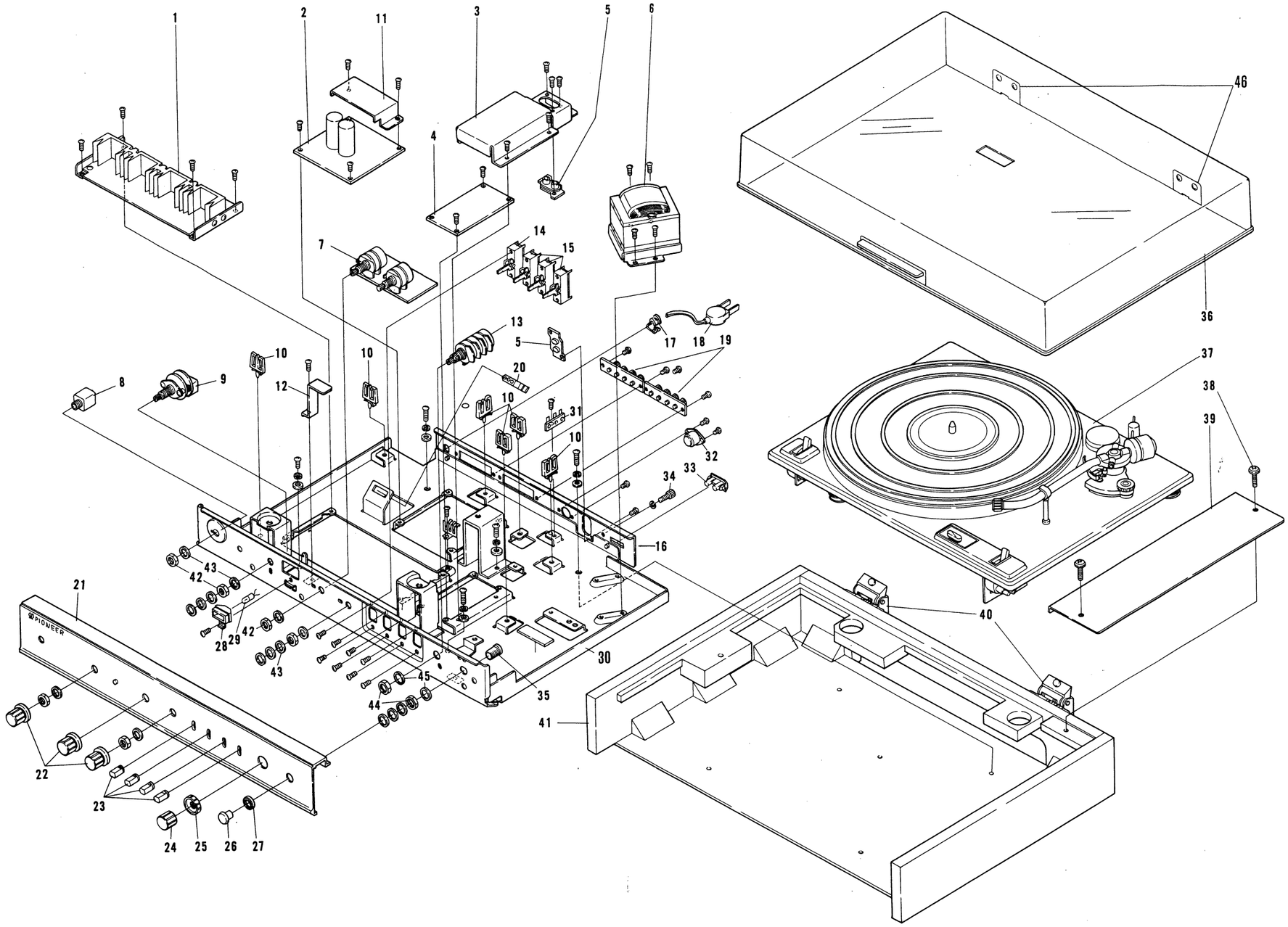
Key No.	Description	Part No.	
	Belt guide assembly	KXA-093-C	
1*	Belt guide	KNB-004-B	
2*	Belt guide angle	KNB-005-B	
3	Washer	N51-794-0	



NOTES:
The following symbols stand for screws, nut, washers as shown in EXPLODED VIEWS.

P:	Pan head screw
PSB:	Pan head sems B screw
PSF:	Pan head sems F screw
N:	Hexagonal nut
E:	Retaining washer
F:	Flat washer
SW:	Spring washer
C:	Countersunk head screw
T:	Tapping screw

Figures succeeding these symbols denote dimensions.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PIONEER
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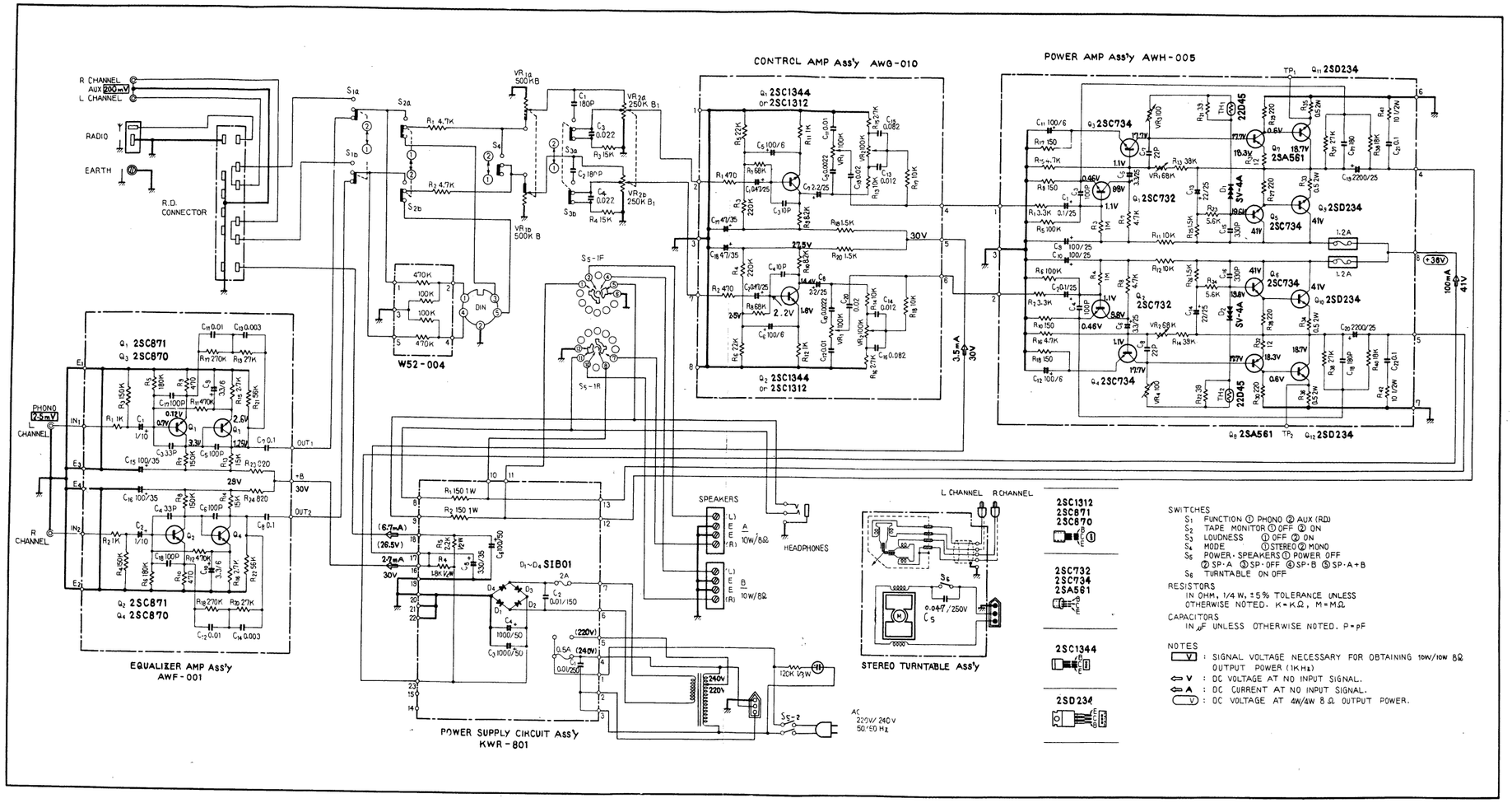
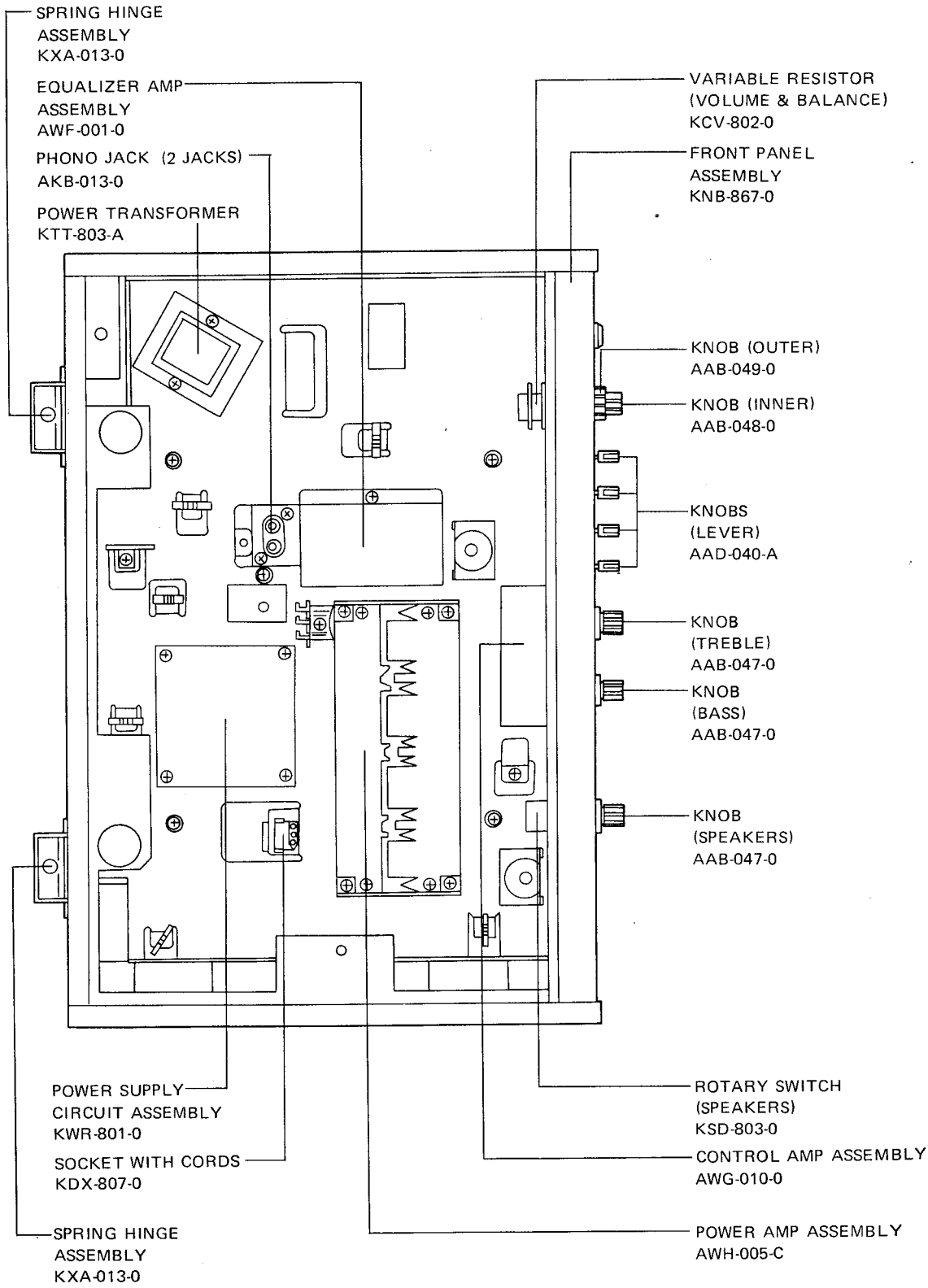
9. SHEMATIC DIAGRAMS, P.C. BOARD PATTERNS AND PARTS LISTS

9.1 CIRCUIT CONNECTION DIAGRAM AND MISCELLANEOUS PARTS



7. PARTS AND P.C. BOARD LOCATION



8. EXPLODED VIEW AND PARTS LIST

NOTE
Any parts asterisked (*) are subject to being not supplied.

Key No.	Description	Part No.	
1	Power amplifier assembly	AWH-005-C	
2	Power supply circuit assembly	KWR-801-0	
3*	Shield cover	KNH-821-0	
4	Equalizer amplifier assembly	AWF-001-0	
5	Phono jack (2 Jacks)	AKB-013-0	
6	Power transformer	KTT-803-A	
7	Control amplifier assembly	AWG-010-0	
8	Phone jack (HEAD)	K72-026-0	
9	Rotary switch (SPEAKERS)	KSD-803-0	
10*	Wire clip-A	AEC-004-0	
11*	Protector cover	KEE-812-0	
12*	Retainer	KNK-812-0	
13	Variable resistor (VOLUME, BALANCE)	KCV-802-0	
14	Lever switch (MODE)	ASK-008-0	
15	Lever switch (TAPE·MON, LOUDNESS, FUNCTION)	ASK-006-0	
16*	Rear panel	KNC-803-0	
17	AC cord grommet	AEC-079-0	
18	AC power cord	ADG-004-0	
19	Speaker output terminal (4P)	KKA-801-0	
20	Socket with cords	KDX-807-0	
21	Front panel assembly	KNB-867-0	
22	Knob (SPEAKERS, TREBLE, BASS)	AAB-047-0	
23	Knob (Lever)	AAD-040-A	
24	Knob (Inner)	AAB-048-0	
25	Knob (Outer)	AAB-049-0	
26	Grommet	KEB-809-0	
27	Accessory nut 11ϕ	KBN-801-0	
28	Rubber bracket	KEB-808-0	
29	Neon lamp	KEL-801-0	
30*	Chassis	KNA-813-0	
31	Terminal strip (IL2P)	K13-027-A	
32	Connector (DIN type 5P)	K93-003-B	
33	Socket (ANT)	KKP-802-0	
34	Binding post (Ground)	B11-012-A	
35	Bush	KBE-801-0	
36	Dust cover	KNK-090-0	
37*	Turntable unit		
38	Screw M4X20	ABA-010-A	
39	Accessory panel	KNK-813-0	
40	Spring hinge assembly	KXA-013-0	
41	Wooden cabinet	KMM-805-0	
42	Nut 9ϕ	B71-004-0	
43	Flat washer 9ϕ	M45-086-A	
44	Nut 11ϕ	B71-005-0	
45	Flat washer 11ϕ	B22-009-0	
46	Lock plate	N61-084-0	

- CAPACITORS: IN μF UNLESS OTHERWISE NOTED p: pF
- RESISTORS: IN Ω, ¼W UNLESS OTHERWISE NOTED k:kΩ, M=MΩ

Miscellaneous Parts List

CAPACITORS

Symbol	Description			Part No.	
C1	Ceramic	180p	50V	CCD 181K 50	
C2	Ceramic	180p	50V	CCD 181K 50	
C3	Mylar	0.022	50V	CQMA 223K 50	
C4	Mylar	0.022	50V	CQMA 223K 50	
C5	Ceramic	0.047	250V	KCE-005-0	

RESISTORS

Symbol	Description		Part No.	
R1	Carbon film	4.7k	RD¼PS 472J	
R2	Carbon film	4.7k	RD¼PS 472J	
R3	Carbon film	15k	RD¼PS 153J	
R4	Carbon film	15k	RD¼PS 153J	
VR1, 2	Variable resistor	250k-B, 500k-B	KCV-802-0	

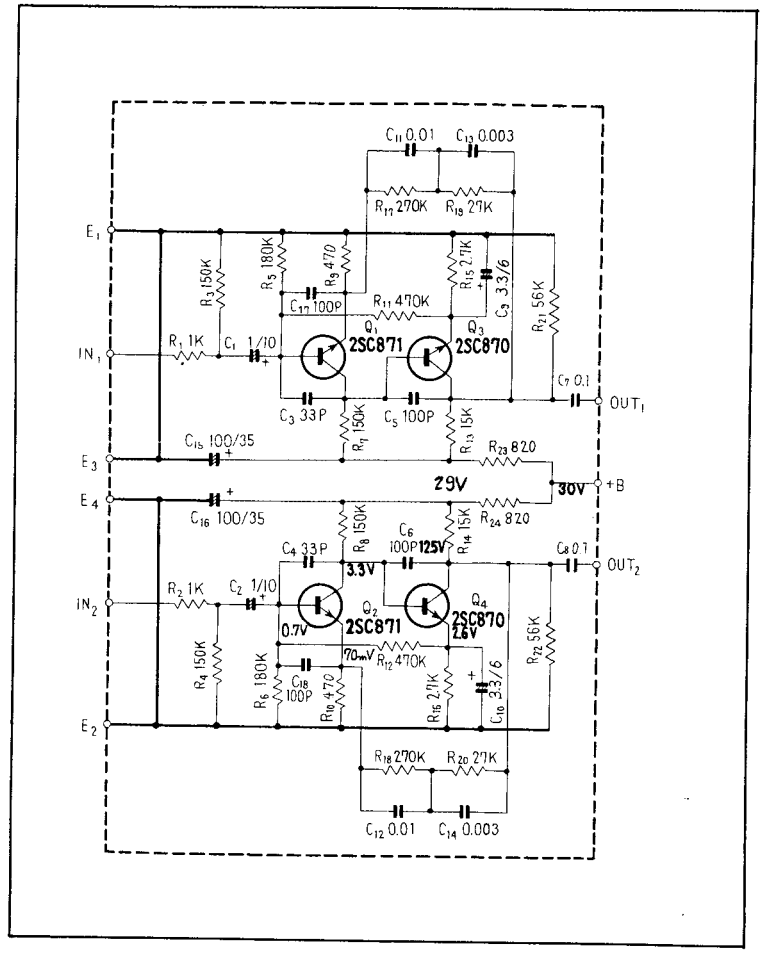
SWITCHES

Symbol	Description	Part No.	
S1	Lever switch (FUNCTION)	ASK-006-0	
S2	Lever switch (TAPE MON)	ASK-006-0	
S3	Lever switch (LOUDNESS)	ASK-006-0	
S4	Lever switch (MODE)	ASK-008-0	
S5	Rotary switch (SPEAKERS)	KSD-803-0	
S6	Microswitch (AC Power of turntable)	KSF-015-0	

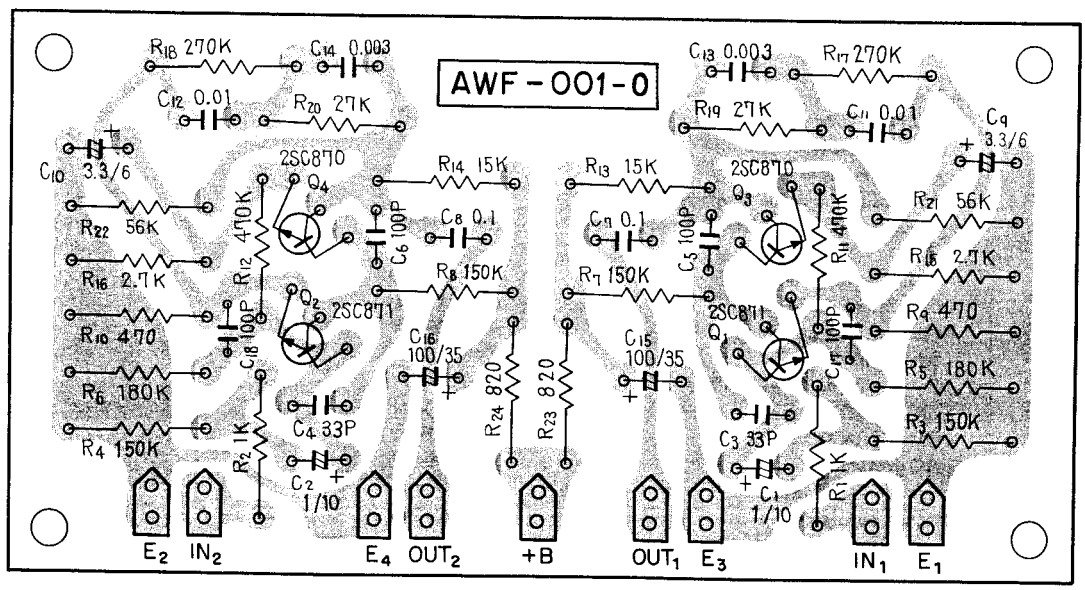
OTHERS

Symbol	Description	Part No.	
	Equalizer amplifier assembly	AWF-001-0	
	Control amplifier assembly	AWG-010-0	
	Power amplifier assembly	AWH-005-C	
	Power supply circuit assembly	KWR-801-0	
	Compound part for REC terminal	W52-004-0	
	Power transformer	KTT-803-A	
	Phono jack (2 Jacks)	AKB-013-0	
	Speaker output terminal (4P)	KKA-801-0	
	Socket (ANT)	KKP-802-0	
	Connector (DIN type 5P)	K93-003-B	
	Phone jack (HEAD)	K72-026-0	
	AC power cord	ADG-004-0	
	Socket with cords	KDX-807-0	
	Foot assembly	KWX-002-A	

9.2 EQUALIZER AMPLIFIER ASSEMBLY (AWF-001)



Foil side



Parts List of Equalizer Amplifier Assembly

CAPACITORS

Symbol	Description			Part No.	
C1	Electrolytic	1	10V	CSSA 010X 10	
C2	Electrolytic	1	10V	CSSA 010X 10	
C3	Ceramic	33p	50V	CCDSL 330K 50	
C4	Ceramic	33p	50V	CCDSL 330K50	
C5	Ceramic	100p	50V	CCDSL 101K 50	
C6	Ceramic	100p	50V	CCDSL 101K 50	
C7	Mylar	0.1	50V	CQMA 104M 50	
C8	Mylar	0.1	50V	CQMA 104M 50	
C9	Electrolytic	3.3	6V	CEA 3R3P 6	
C10	Electrolytic	3.3	6V	CEA 3R3P 6	
C11	Mylar	0.01	50V	CQMA 103M 50	
C12	Mylar	0.01	50V	CQMA 103M 50	
C13	Mylar	0.003	50V	CQMA 302M 50	
C14	Mylar	0.003	50V	CQMA 302M 50	
C15	Electrolytic	100	35V	CEA 101P 35	
C16	Electrolytic	100	35V	CEA 101P 35	
C17	Ceramic	100p	50V	CCDSL 101K 50	
C18	Ceramic	100p	50V	CCDSL 101K 50	

SEMICONDUCTORS

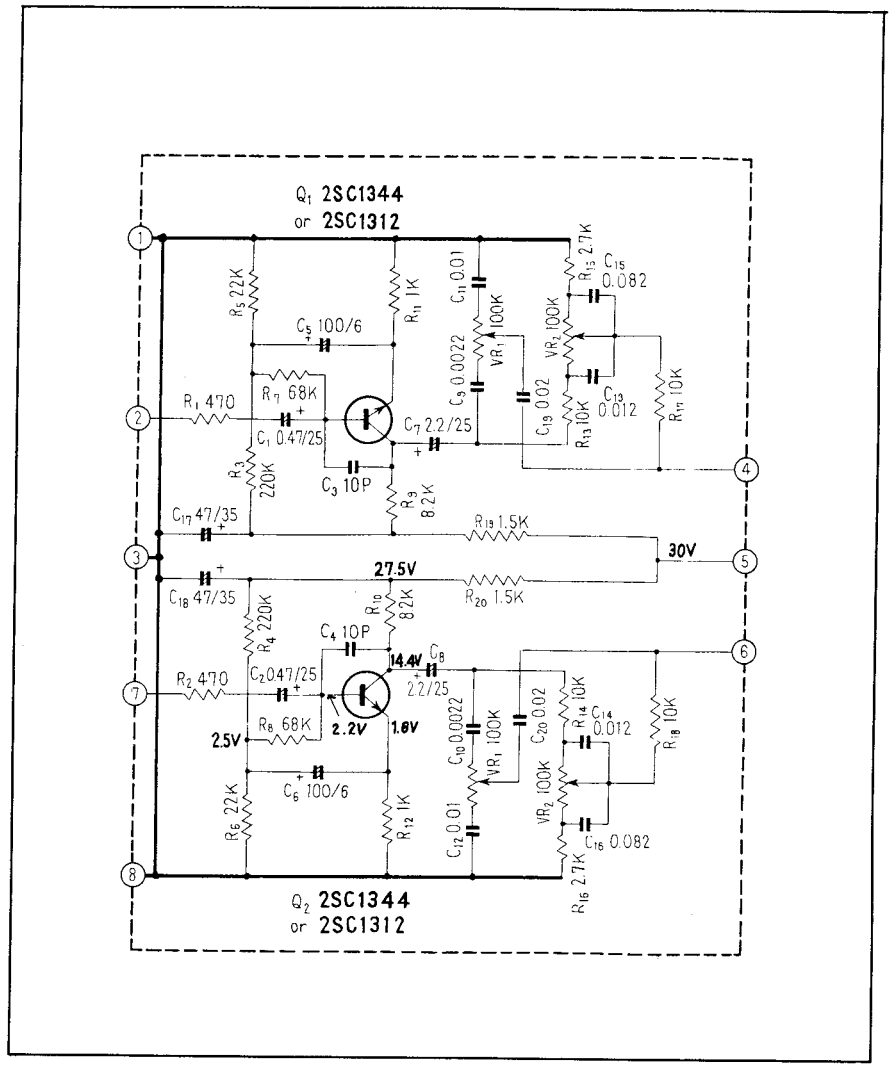
Symbol	Description	Part No.	
Q1	Transistor 2SC871-GR or BL		
Q2	Transistor 2SC871-GR or BL		
Q3	Transistor 2SC870		
Q4	Transistor 2SC870		

RESISTORS

Symbol	Description		Part No.	
R1	Carbon film	1k	RD¼PS 102J	
R2	Carbon film	1k	RD¼PS 102J	
R3	Carbon film	150k	RD¼PS 154J	
R4	Carbon film	150k	RD¼PS 154J	
R5	Carbon film	180k	RD¼PS 184J	
R6	Carbon film	180k	RD¼PS 184J	
R7	Carbon film	150k	RD¼PS 154J	
R8	Carbon film	150k	RD¼PS 154J	
R9	Carbon film	470	RD¼PS 471J	
R10	Carbon film	470	RD¼PS 471J	
R11	Carbon film	470k	RD¼PS 474J	
R12	Carbon film	470k	RD¼PS 474J	
R13	Carbon film	15k	RD¼PS 153J	
R14	Carbon film	15k	RD¼PS 153J	
R15	Carbon film	2.7k	RD¼PS 272J	

Symbol	Description		Part No.	
R16	Carbon film	2.7k	RD¼PS 272J	
R17	Carbon film	270k	RD¼PS 274J	
R18	Carbon film	270k	RD¼PS 274J	
R19	Carbon film	27k	RD¼PS 273J	
R20	Carbon film	27k	RD¼PS 273J	
R21	Carbon film	56k	RD¼PS 563J	
R22	Carbon film	56k	RD¼PS 563J	
R23	Carbon film	820	RD¼PS 821J	
R24	Carbon film	820	RD¼PS 821J	

9.3 CONTROL AMPLIFIER ASSEMBLY (AWG-010)



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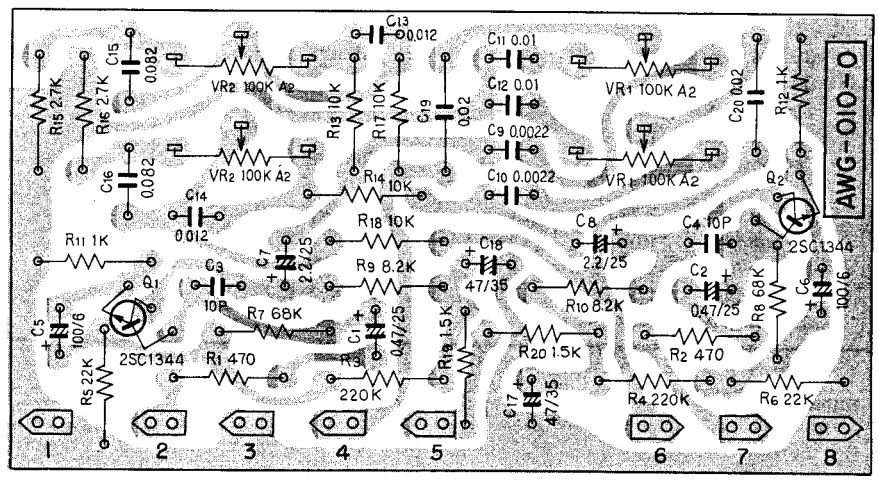


Parts List of Control Amplifier Assembly

CAPACITORS

Symbol	Description			Part No.	
C1	Electrolytic	0.47	25V	CSSA R47X 25	
C2	Electrolytic	0.47	25V	CSSA R47X 25	
C3	Ceramic	10p	50V	CCDSL 100K 50	
C4	Ceramic	10p	50V	CCDSL 100K 50	
C5	Electrolytic	100	6V	CEA 101P 6	
C6	Electrolytic	100	6V	CEA 101P 6	
C7	Electrolytic	2.2	25V	CSSA 2R2X 25	
C8	Electrolytic	2.2	25V	CSSA 2R2X 25	
C9	Ceramic	0.0022	50V	CKDYB 222K 50	
C10	Ceramic	0.0022	50V	CKDYB 222K 50	
C11	Mylar	0.01	50V	CQMA 103K 50	
C12	Mylar	0.01	50V	CQMA 103K 50	
C13	Mylar	0.012	50V	CQMA 123K 50	
C14	Mylar	0.012	50V	CQMA 123K 50	
C15	Mylar	0.082	50V	CQMA 823K 50	
C16	Mylar	0.082	50V	CQMA 823K 50	
C17	Electrolytic	47	35V	CEA 470P 35	
C18	Electrolytic	47	35V	CEA 470P 35	
C19	Mylar	0.02	50V	CQMA 203K 50	
C20	Mylar	0.02	50V	CQMA 203K 50	

RESISTORS

Symbol	Description		Part No.	
R1	Carbon film	470	RD¼PS 471J	
R2	Carbon film	470	RD¼PS 471J	
R3	Carbon film	220k	RD¼PS 224J	
R4	Carbon film	220k	RD¼PS 224J	
R5	Carbon film	22k	RD¼PS 223J	
R6	Carbon film	22k	RD¼PS 223J	
R7	Carbon film	68k	RD¼PS 683J	
R8	Carbon film	68k	RD¼PS 683J	
R9	Carbon film	8.2k	RD¼PS 822J	
R10	Carbon film	8.2k	RD¼PS 822J	
R11	Carbon film	1k	RD¼PS 102J	
R12	Carbon film	1k	RD¼PS 102J	
R13	Carbon film	10k	RD¼PS 103J	
R14	Carbon film	10k	RD¼PS 103J	
R15	Carbon film	2.7k	RD¼PS 272J	
R16	Carbon film	2.7k	RD¼PS 272J	
R17	Carbon film	10k	RD¼PS 103J	
R18	Carbon film	10k	RD¼PS 103J	
R19	Carbon film	1.5k	RD¼PS 152J	
R20	Carbon film	1.5k	RD¼PS 152J	

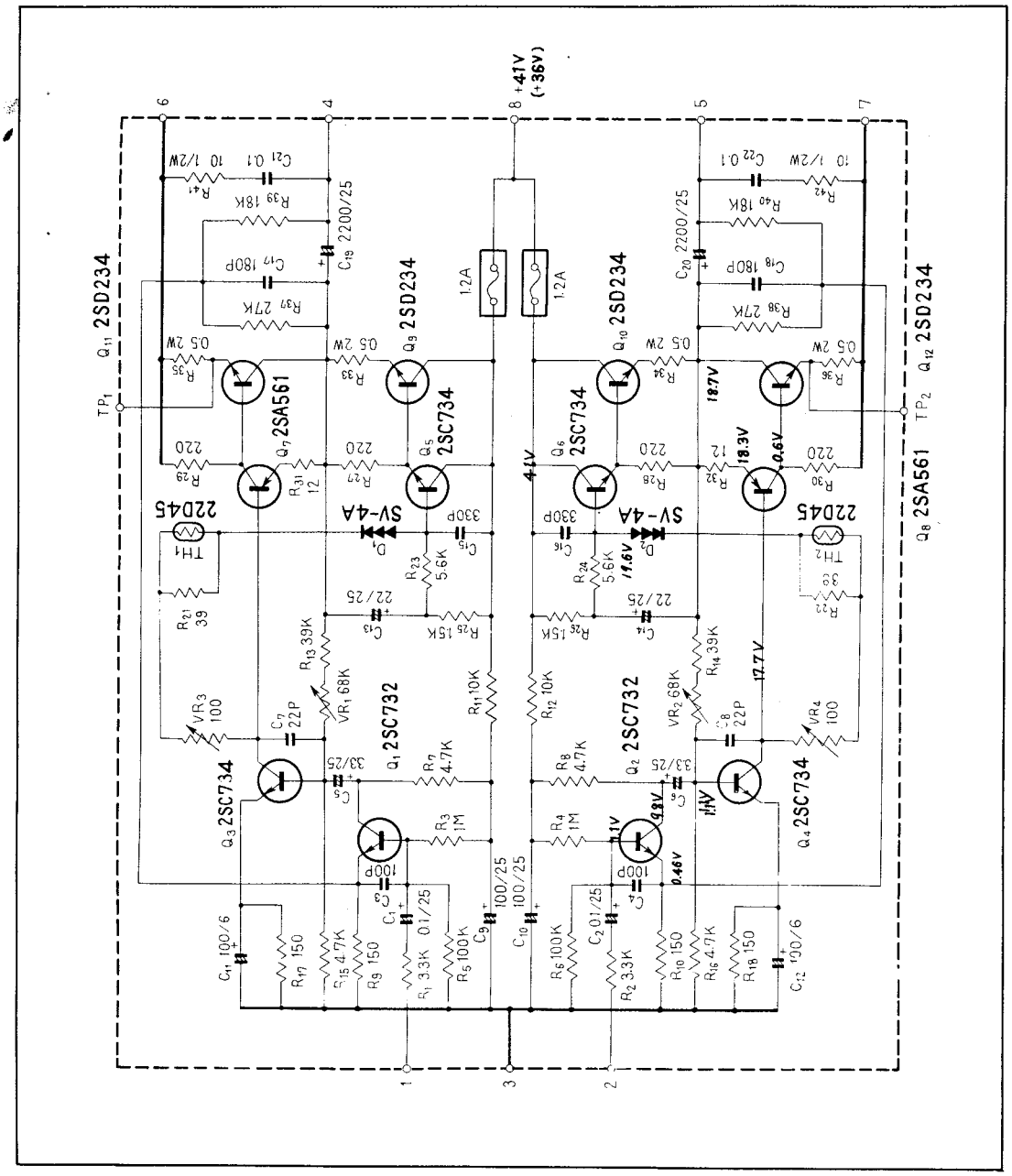
POTENTIOMETERS

Symbol	Description	Part No.	
VR1	Variable resistor (TREBLE) 100k-A2	C82-046-A	
VR2	Variable resistor (BASS) 100k-A2	C82-046-A	

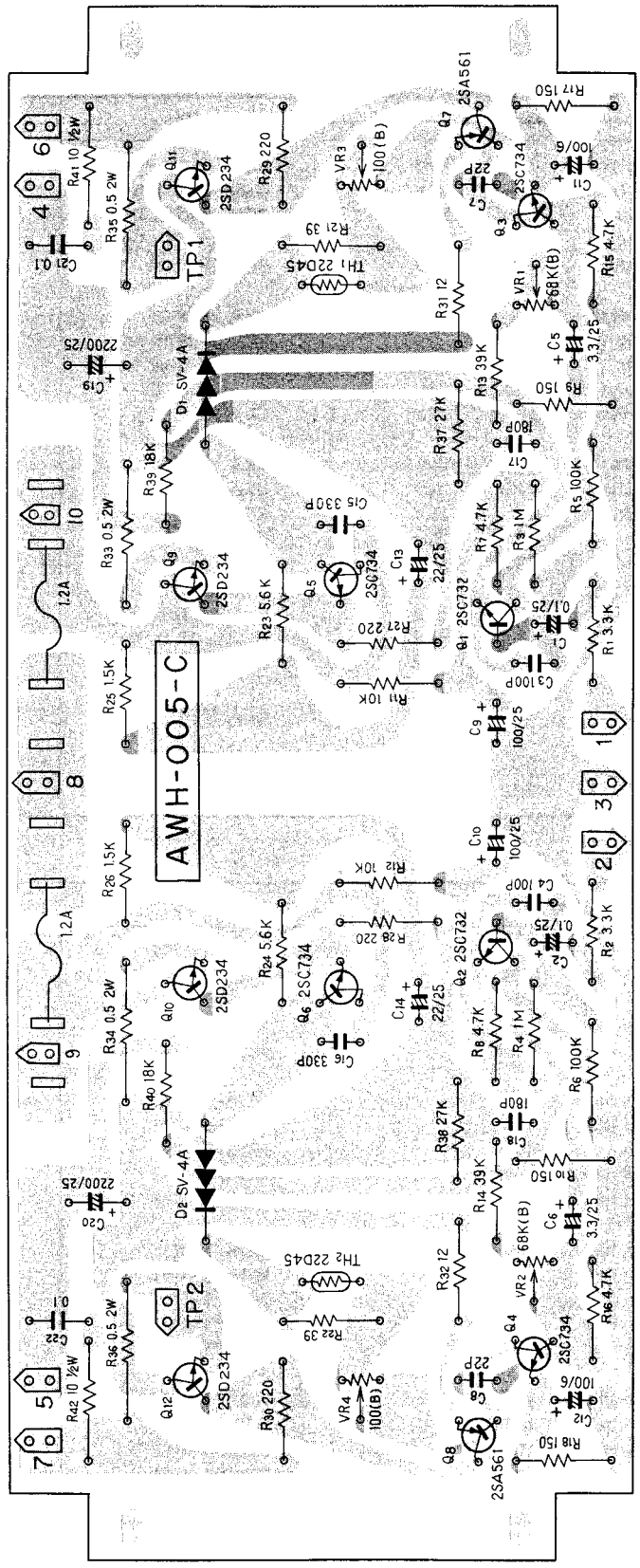
SEMICONDUCTORS

Symbol	Description	Part No.	
Q1	Transistor 2SC1344-E or D (2SC1312-G or F)		
Q2	Transistor 2SC1344-E or D (2SC1312-G or F)		

9.4 POWER AMPLIFIER ASSEMBLY (AWH-005)



Foil side


AWH-005-C
TP1
TP2
D1 SV-4A
D2 SV-4A
TH1 22D45
TH2 22D45
1.2A
1.2A
2SA561
2SC734
2SC732
2SD234

Parts List of Power Amplifier Assembly

CAPACITORS

Symbol	Description			Part No.	
C1	Electrolytic	0.1	25V	CSSA 0R1X 25	
C2	Electrolytic	0.1	25V	CSSA 0R1X 25	
C3	Ceramic	100p	50V	CCDSL 101K 50	
C4	Ceramic	100p	50V	CCDSL 101K 50	
C5	Electrolytic	3.3	25V	CEA 3R3P 25	
C6	Electrolytic	3.3	25V	CEA 3R3P 25	
C7	Ceramic	22p	50V	CCDSL 220K 50	
C8	Ceramic	22p	50V	CCDSL 220K 50	
C9	Electrolytic	100	25V	CEA 101P 25	
C10	Electrolytic	100	25V	CEA 101P 25	
C11	Electrolytic	100	6V	CEA 101P 6	
C12	Electrolytic	100	6V	CEA 101P 6	
C13	Electrolytic	22	25V	CEA 220P 25	
C14	Electrolytic	22	25V	CEA 220P 25	
C15	Ceramic	330p	50V	CKDYB 331K 50	
C16	Ceramic	330p	50V	CKDYB 331K 50	
C17	Ceramic	180p	50V	CCDSL 181K 50	
C18	Ceramic	180p	50V	CCDSL 181K 50	
C19	Electrolytic	2,200	25V	CEA 222P 25	
C20	Electrolytic	2,200	25V	CEA 222P 25	
C21	Mylar	0.1	50V	CQMA 104M 50	
C22	Mylar	0.1	50V	CQMA 104M 50	

RESISTORS

Symbol	Description		Part No.	
R1	Carbon film	3.3k	RD¼PS 332J	
R2	Carbon film	3.3k	RD¼PS 332J	
R3	Carbon film	1M	RD¼PS 105J	
R4	Carbon film	1M	RD¼PS 105J	
R5	Carbon film	100k	RD¼PS 104J	
R6	Carbon film	100k	RD¼PS 104J	
R7	Carbon film	4.7k	RD¼PS 472J	
R8	Carbon film	4.7k	RD¼PS 472J	
R9	Carbon film	150	RD¼PS 151J	
R10	Carbon film	150	RD¼PS 151J	
R11	Carbon film	10k	RD¼PS 103J	
R12	Carbon film	10k	RD¼PS 103J	
R13	Carbon film	39k	RD¼PS 393J	
R14	Carbon film	39k	RD¼PS 393J	
R15	Carbon film	4.7k	RD¼PS 472J	
R16	Carbon film	4.7k	RD¼PS 472J	
R17	Carbon film	150	RD¼PS 151J	
R18	Carbon film	150	RD¼PS 151J	
R21	Carbon film	39	RD¼PS 390J	
R22	Carbon film	39	RD¼PS 390J	

Symbol	Description			Part No.	
R23	Carbon film	5.6k		RD¼PS 562J	
R24	Carbon film	5.6k		RD¼PS 562J	
R25	Carbon film	1.5k		RD¼PS 152J	
R26	Carbon film	1.5k		RD¼PS 152J	
R27	Carbon film	220		RD¼PS 221J	
R28	Carbon film	220		RD¼PS 221J	
R29	Carbon film	220		RD¼PS 221J	
R30	Carbon film	220		RD¼PS 221J	
R31	Carbon film	12		RD¼PS 120J	
R32	Carbon film	12		RD¼PS 120J	
R33	Metal film	0.5	2W	RN2H 0R5K	
R34	Metal film	0.5	2W	RN2H 0R5K	
R35	Metal film	0.5	2W	RN2H 0R5K	
R36	Metal film	0.5	2W	RN2H 0R5K	
R37	Carbon film	27k		RD¼PS 273J	
R38	Carbon film	27k		RD¼PS 273J	
R39	Carbon film	18k		RD¼PS 183J	
R40	Carbon film	18k		RD¼PS 183J	
R41	Carbon film	10	½W	RD½PS 100J	
R42	Carbon film	10	½W	RD½PS 100J	

POTENTIOMETERS

Symbol	Description	Part No.	
VR1	Semi-fixed, 68k-B	ACP-002-0	
VR2	Semi-fixed, 68k-B	ACP-002-0	
VR3	Semi-fixed, 100-B	C92-063-0	
VR4	Semi-fixed, 100-B	C92-063-0	

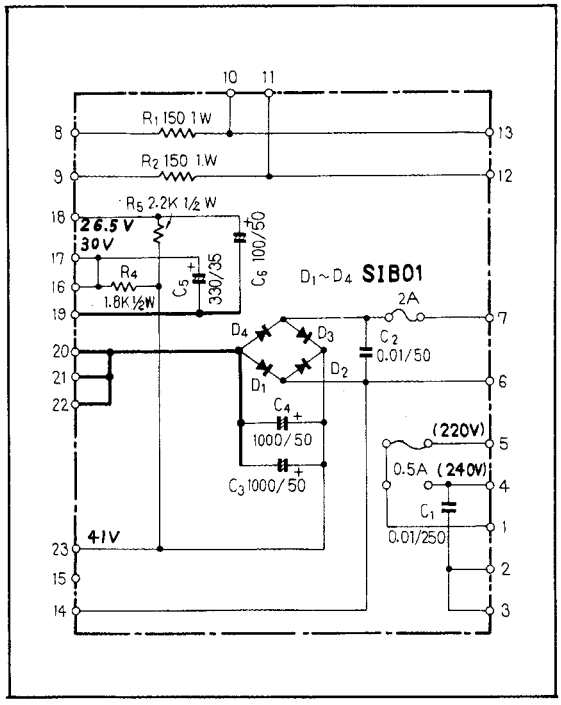
SEMICONDUCTORS

Symbol	Description		Part No.	
Q1	Transistor	2SC732		
Q2	Transistor	2SC732		
Q3	Transistor	2SC734-Y or GR		
Q4	Transistor	2SC734-Y or GR		
Q5	Transistor	2SC734		
Q6	Transistor	2SC734		
Q7	Transistor	2SA561		
Q8	Transistor	2SA561		
Q9	Transistor	2SD234		
Q10	Transistor	2SD234		
Q11	Transistor	2SD234		
Q12	Transistor	2SD234		
D1	Varistor	SV-4A		
D2	Varistor	SV-4A		
TH1	Thermistor	22D 45		
TH2	Thermistor	22D 45		

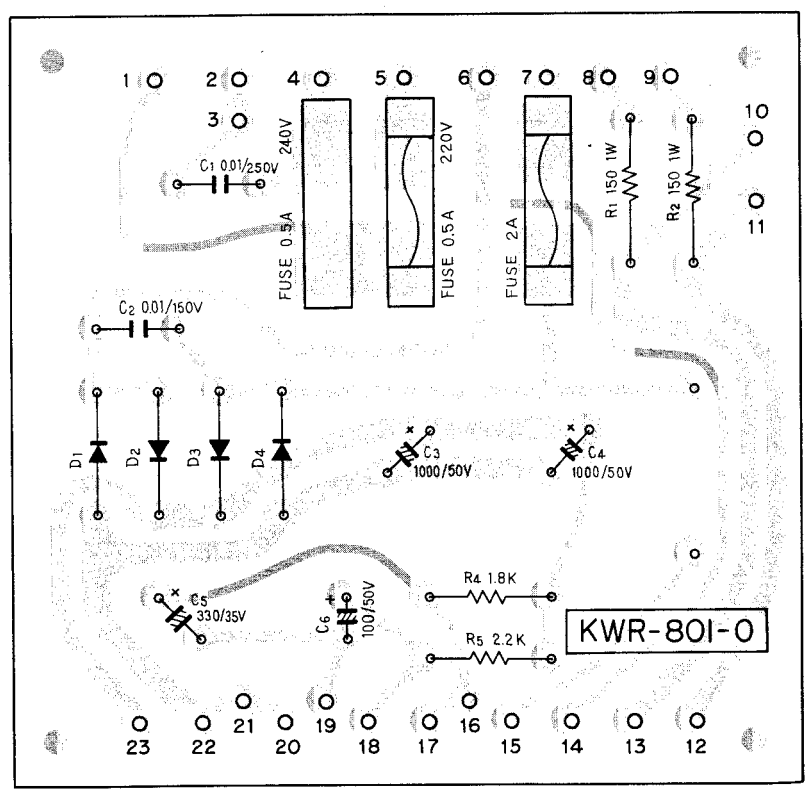
OTHERS

Symbol	Description	Part No.	
	Insulating spacer Insulating screw	E32-102-0 ABB-001-0	

9.5 POWER SUPPLY CIRCUIT ASSEMBLY (KWR-801)



Foil side



Parts List of Power Supply Circuit Assembly

CAPACITORS

Symbol	Description			Part No.	
C1	Ceramic	0.01	250V	ACG-001-0	
C2	Ceramic	0.01	150V	ACG-004-0	
C3	Electrolytic	1,000	50V	CEA 102P 50	
C4	Electrolytic	1,000	50V	CEA 102P 50	
C5	Electrolytic	330	35V	CEA 331P 35	
C6	Electrolytic	100	50V	CEA 101P 50	

RESISTORS

Symbol	Description			Part No.	
R1	Metal oxide	150	1W	RS1P 151J	
R2	Metal oxide	150	1W	RS1P 151J	
R4	Carbon film	1.8k	½W	RD½PS 182J	
R5	Carbon film	2.2k	½W	RD½PS 222J	

SEMICONDUCTORS

Symbol	Description		Part No.	
D1	Diode	SIB01-02		
D2	Diode	SIB01-02		
D3	Diode	SIB01-02		
D4	Diode	SIB01-02		

OTHERS

Symbol	Description	Part No.	
	Fuse 0.5A (Protection)	AEK-014-0	
	Fuse 2A (AC Power)	AEK-017-0	

10. EXPLODED VIEW AND PARTS LISTS OF STEREO TURNTABLE

10.1 MECHANISM

NOTICE:
Any parts asterisked (*) are subject to being not supplied.

Key No.	Description	Part No.	
1	Rubber mat ring	A61-602-A	
2	Rubber mat	E31-606-B	
3	Turntable platter	KNH-063-A	
4	Belt	KEB-004-0	
5	Nut	B71-656-B	
6	Washer	B22-650-0	
7*	Panel	KNA-703-0	
8	Speed selector name plate	KNK-166-A	
9	Tonearm assembly	KPD-015-J	
10*	Head shell		
11	Elevation unit	KXA-394-0	
12	Lateral balance weight	KXA-420-A	
13	⊖Setscrew M4 x 5		
14	Sub-weight	KLA-494-A	
15	Elevation shaft	KLA-350-A	
16	Elevation spring	KBH-022-A	
17	Tray washer	KNA-125-A	
18	Plug with cords	KDE-073-0	
19*	Cord cramper	KNK-213-0	
20	Main weight assembly	KXA-566-A	
22	Output cord	KDE-074-0	
23	Spring assembly (B)	KXA-238-E	
24	Buffer	E33-625-0	
25*	Retainer	N61-063-B	
26	Adaptor catch	N93-007-A	
27	Stand base	KNK-117-0	
28	Arm rest	KNK-185-A	
29	Arm rest stand	N54-843-0	
30*	Eyelet 3ϕ x 7		
31	Overhang checker	KNK-168-C	
32	Escutcheon	KNK-167-B	
33	Spring assembly (C)	KXA-158-B	
34	Buffer	E33-625-0	
35	Terminal strip (1L4P)	AKC-019-0	
36	Tapping screw M3 x 6		
37	Function lever assembly	KXA-331-F	
38	Tapping screw M3 x 6		
39	Center shaft assembly	W71-004-C	
40	Spring assembly (D)	KXA-240-E	
41	Buffer	E33-625-0	

NOTICE:
Any parts asterisked (*) are subject to being not supplied.

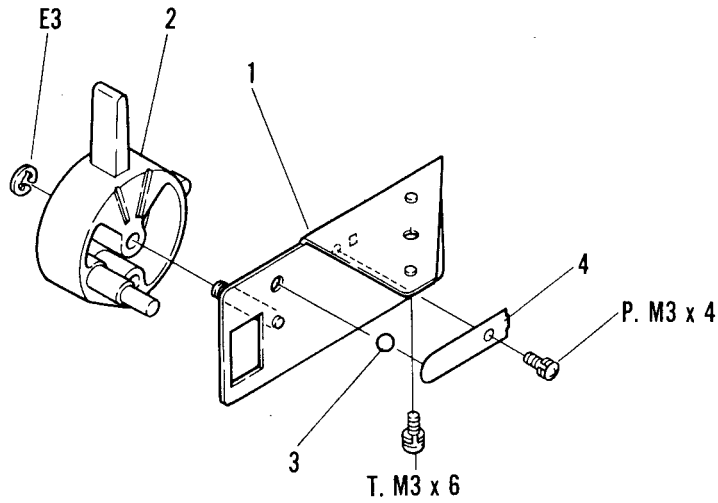
Key No.	Description	Part No.	
42*	Motor panel	KNA-456-A	
43	Rubber grommet	E31-605-A	
44	Screw	KBA-025-0	
45	Motor	KXM-015-B	
46	Motor pulley 50Hz	N24-005-F	
	60Hz	N24-006-F	
47*	Retainer	N61-063-B	
48	Speed selector assembly	KXA-296-0	
49	Tapping screw M3 x 6		
50	Spring assembly (C)	KXA-239-E	
51	Buffer	E33-625-0	
52	Belt guide assembly	KXA-093-C	
53	Tapping screw M3 x 6		
54	Terminal strip (2L4P)	KKC-018-A	
55	Cartridge (PC-30)		HV model only

NOTES:
The following symbols stand for screws, nut, washers as shown in EXPLODED VIEWS.
P: Pan head screw
PSB: Pan head sems B screw
PSF: Pan head sems F screw
N: Hexagonal nut
E: Retaining washer
F: Flat washer
SW: Spring washer
C: Countersunk head screw
T: Tapping screw
Figures succeeding these symbols denote dimensions.

10.4 SPEED SELECTOR ASSEMBLY

NOTICE:
Any parts asterisked (*) are subject to being not supplied.

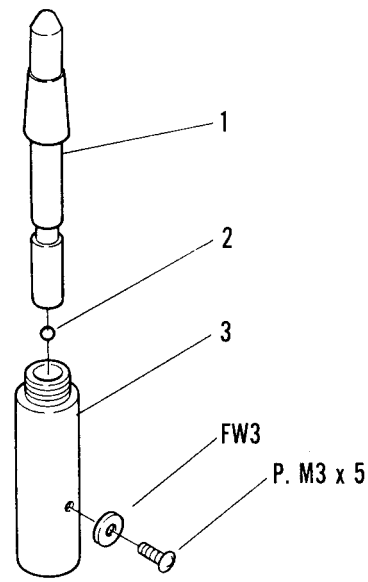
Key No.	Description	Part No.	
	Speed selector assembly	KXA-296-0	
1*	Speed selector angle	KWM-026-0	
2*	Function lever	KNK-169-0	
3	Steel ball 5/32"		
4*	Plate spring	KBK-016-0	



10.5 CENTER SHAFT ASSEMBLY

NOTICE:
Any parts asterisked (*) are subject to being not supplied.

Key No.	Description	Part No.	
	Center shaft assembly	W71-004-C	
1*	Center shaft	N54-786-B	
2	Steel ball 1/8"		
3*	Center shaft base	N23-614-C	



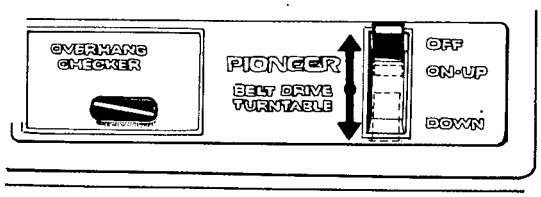
11. OPERATIONS

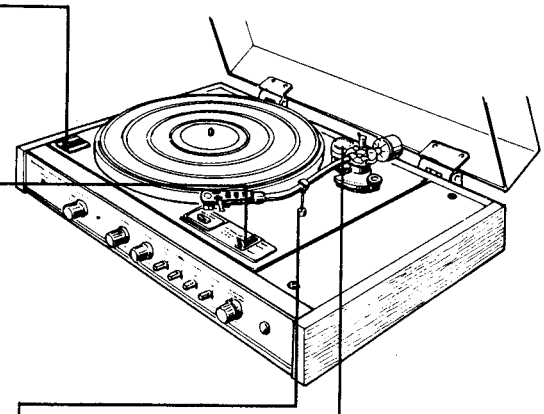
Speed Selector Lever

The C-4500 is a two-speed model; 33-1/3 rpm and 45 rpm. Setting the lever to either speed position will automatically set the turntable for operation at that speed.

Function Lever

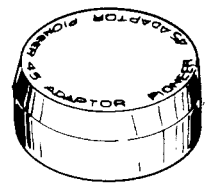
OFF ..... Tonearm is lifted off the record. Motor is turned off.
ON-UP ..... Tonearm is lifted off the record. Motor is operating.
DOWN ..... Tonearm floats down gently upon the record. Motor is operating.





EP Record Adaptor

An EP record adaptor is supplied in the accessory case, which permits 45 rpm records with large center holes to be played. When the adaptor is not in use, keep it on the pin located in the upper right of the base plate.



Arm Rest

The arm rest supports the tonearm usually locked with the arm clamper. When using the tonearm, free it from the clamper.

AMPLIFIER OPERATION

1. Set the FUNCTION switch to PHONO.
2. Position the MODE switch to STEREO.
3. Adjust VOLUME, BASS and TREBLE controls for desired volume and tone.

TURNTABLE OPERATION

1. Put the record to be played on the turntable.
2. Remove the stylus guard.
3. Set the function lever to position ON-UP. The turntable begins to rotate.
4. Set the speed selector at the correct position: 33 or 45 rpm.
5. Take the tonearm off its rest and move it over the initial record grooves, or the section from which you want to play the record.
6. Set the function lever to position DOWN. Playing begins.
7. At the end of the record, move the function lever to position OFF. The tonearm will lift up from the record and then let it return to its rest by hand.

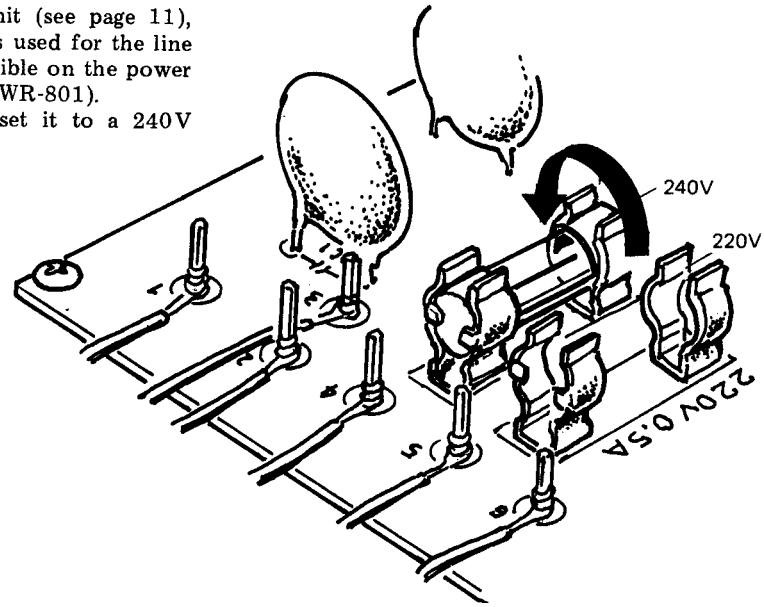
IMPORTANT! OBSERVE CAREFULLY

1. Never touch the speed selector lever unless the turntable is rotating. The speed can be changed only while the turntable is rotating.
2. Never obstruct the turntable by hand while it is rotating. This may cause damage.
3. Always keep the stylus clean. Remove dust with a soft brush.
4. Always keep your records scrupulously clean, too. Clean them with a commercially available record cleaner or cloth.
5. Never touch the stylus with your finger.
6. It is recommended to use the stylus guard when not playing a record.

12. SELECTION OF LINE VOLTAGE

The line voltage is factory set to work on 220V. If your service area does not agree with this voltage, set the unit to 240V as follows:

1. Remove the turntable unit (see page 11), now the two fuse holders used for the line voltage selector are accessible on the power supply circuit assembly (KWR-801).
2. Take the fuse out and set it to a 240V holder.

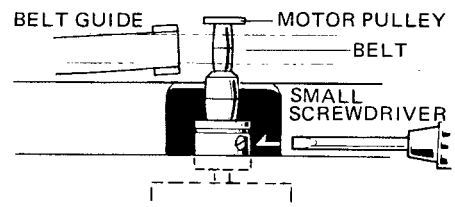


POWER SUPPLY CIRCUIT ASSEMBLY (KWR-801)

13. SELECTION OF LINE FREQUENCY

If the frequency in youre area does not agree with the operation line frequency of the turntable, change the operation line frequency of the unit in the following sequence:

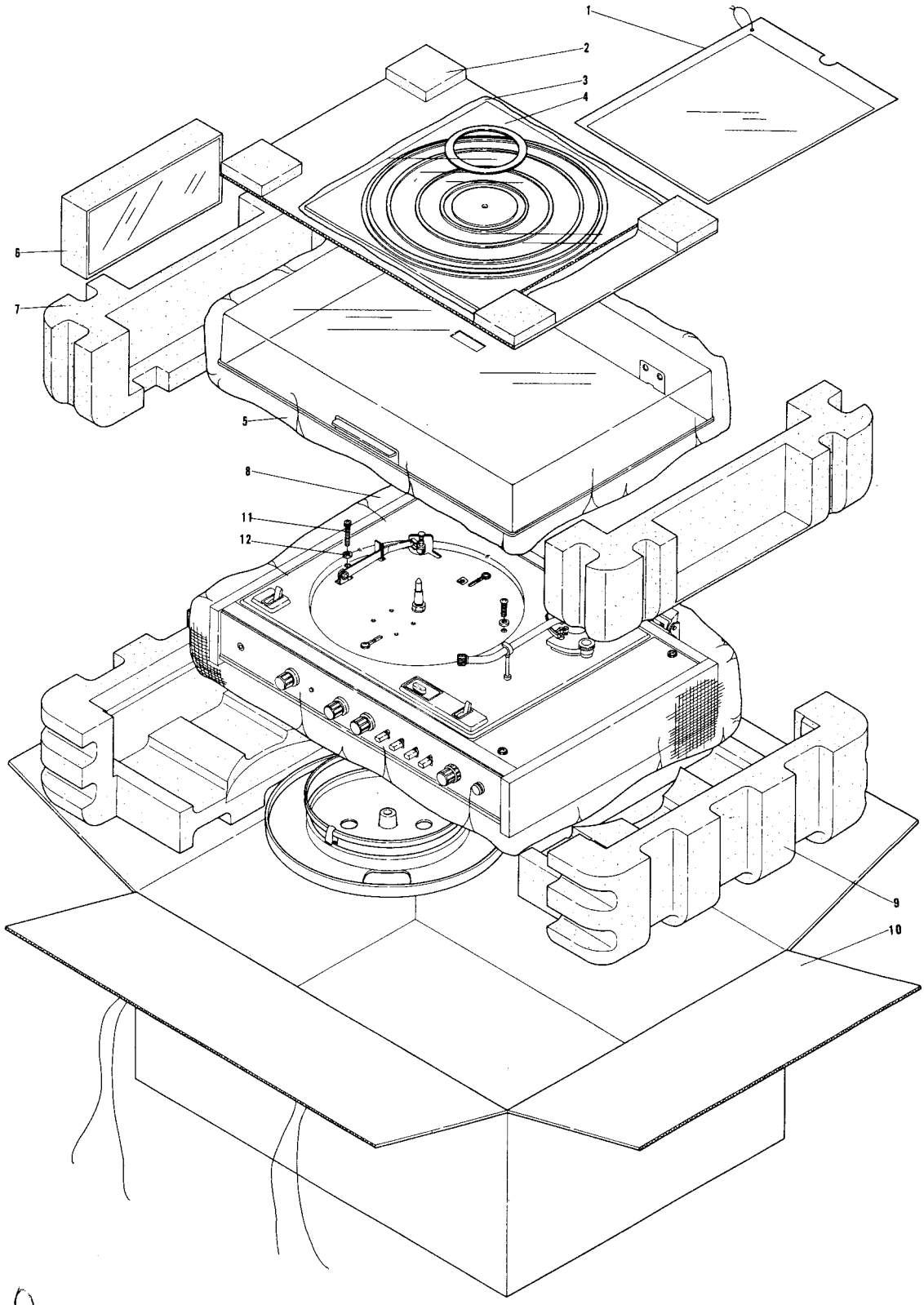
1. Remove the turntable platter. Now the motor pulley is accessible. The pulley is fastened to the motor shaft by one little screw. Remove this with the supplied screwdriver, and remove the pulley.
2. Set the Speed Selector Lever at 33 rpm position.
3. Attach the supplied spare motor pulley and fasten it with the screw removed in step 1. Do not tighten the screw firmly, yet. Then set the turntable platter on the unit and lead the drive belt around the pulley.
4. The belt should be positioned in the belt guide and around the center of the upper (smaller) part of the motor pulley. To achieve this, it may be necessary to loosen the pulley once more and adjust its height.
5. Turn the unit on and confirm that the belt travels smoothly through the belt guide and around the pulley.



NOTE:
The motor pulleys can be distinguished as follows:

Pulley for 50Hz AC:	larger diameter
Pulley for 60Hz AC:	smaller diameter, also has a groove in its lower part.

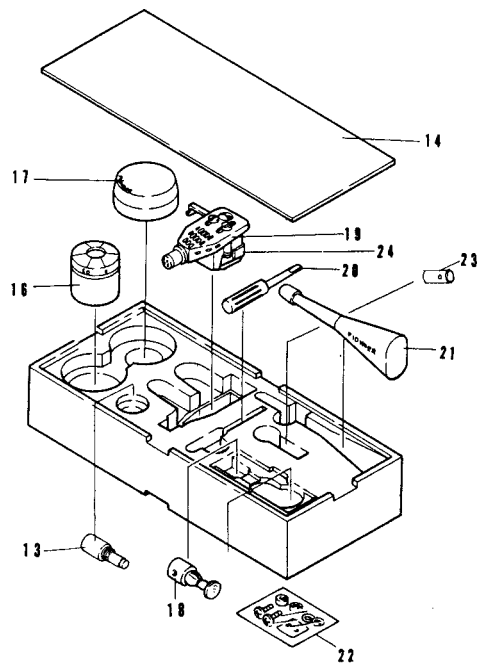
14. PACKING METHOD AND PARTS LIST



PARTS LIST

NOTICE: Any parts asterisked (*) are subject to being not supplied.

Key No.	Description	Part No.	
1	Operating instructions	KRB-049-0	
2	Top cardboard	KHK-810-0	
3	Rubber mat bag 345 x 395 x 0.05(t) mm		
4*	Cardboard		
5*	Dust cover bag 700 x 650 x 0.05(t) mm		
6	Accessory box	KHX-017-A	
7	Styrotector (Upper)	KHA-802-0	
8	Turntable bag		
9	Styrotector (Lower)	KHA-803-0	
10	Packing case HV model	KHK-808-0	
	Packing case HVT model	KHK-812-0	
11	⊕⊖ Pan-head screw M5 x 25		
12	Fiber washer	B22-026-0	
13	Sub-weight	KLA-494-A	
14	Top cover	KHX-002-0	
16	Main weight assembly	KXA-566-A	
17	EP adaptor	KWK-055-B	
18	Motor pulley 50Hz	N24-005-F	
	60Hz	N24-006-F	
19*	Head shell		
20	Screwdriver	KEX-002-A	
21	Lubricator	KEN-001-A	
22	Accessory assembly	KEA-008-A	HVT model only
23	Lateral balance weight	KXA-420-A	
24*	Cartridge (PC-30)		HV model only



15. PARTS FOR USE IN ATTACHING REDIFFUSION TUNER

NOTE
These parts are separately available.

	Description	Part No.	
	Attachment metal	KNK-816-0	
	Knob	KAB-008-0	
	Rediffusion tuner name plate	KAN-806-0	
	Terminal shaft	KBX-801-0	
	Nut	KDN-802-0	
	⊕ Tapping screw M4 x 8		
	Pan head screw M3 x 8		